UTILITY PLANT TECHNICIAN

General Purpose

Under general supervision, assist in operation, maintenance and repair of water or wastewater treatment systems and equipment.

Typical Duties:

Under supervision of Senior Technician, monitor and control water or wastewater treatment processes. Involves: Monitor and control water and wastewater treatment processes and equipment to remove solid materials, chemical compounds and micro-organisms from water in compliance with state and federal permits. Monitor the water treatment process through the SCADA system including carbonation, fluoridation, chlorination or other processes. Check water for turbidity, odors, alkalinity, chlorine residual and other requirements to assure compliance with water quality regulations. Monitor and perform required analytical tests. Monitor laboratory tests of water and assure samples are taken and tested in accordance with federal and state regulations. Assist in controlling routine water treatment processes in compliance with state and federal permits. Learn to calibrate laboratory equipment. Make adjustments to chemical additives according to established guidelines. Maintain proper water levels in tanks and drawing water from wells or canal as needed. Operate pumps, valves and other processing equipment to move water or wastewater through various treatment processes. Read and learn to interpret meters and gauges to ensure plant equipment and processes are working within established operational ranges. Activate or adjust controls as needed to effect process control. Take water or wastewater samples at various stages of processing. Test and add chemicals such as chlorine to water by predetermined formula. Operate chemical-feeding devices, as required. Observe condition of security systems at facilities and report deficiencies

Assure proper operation of gauges, meters, pumps, motors, chemical feeders, automatic control devices or other equipment. Involves: Assist in installation, preventative maintenance and repair of treatment systems and complex equipment. Assist in repair of pumps, motors, aeration systems, chlorinators, chlorine dioxide generators, multiple chemical feeders or similar mechanical equipment. Inspect machinery for proper operation and to detect faulty parts. Replace parts using hand tools. Check electrical equipment for shorts, faulty wiring, loose connections, loss of power and overload. Perform minor electrical or mechanical repairs including basic welding. Perform plumbing tasks such as installing valves and meters on water lines. Install fire sprinkler systems and meters. Lubricate plant equipment. Clean and flush sludge lines. Wash or replace filters and perform other required preventive maintenance. Learn to utilize computer databases to store sampling results, schedule and record shift activity.

Knowledge, Skills, and Abilities

- Application of good knowledge of: operation, maintenance and repair of various mechanical and electromechanical equipment.

- Application of good knowledge of water/wastewater treatment plant operation, control, maintenance and repair processes and procedures.

- Application of some knowledge of federal, state and local water and wastewater treatment regulations governing water/wastewater treatment plant processes and water quality.

- Application of some knowledge of occupational health and safety rules and regulations for safe work practices and procedures.

- Application of some knowledge of variety kinds of water treatment equipment operation including aeration systems, chlorinators, chlorine dioxide generators and multiple chemical feeders.

- Application of some knowledge of chemicals and compounds such as those used in water treatment fluoridation, chlorination or other processes.

- Interpretation of technical manuals, blueprints, and schematics to install, calibrate, adjust and set a variety of meters, gauges and laboratory equipment.

- Interpretation of oral, written, mathematical, and regulatory information dealing with water plant operation and laboratory testing of water, environmental and occupational health and safety standards.

- Application of clear concise oral and written communication skills to learn and assist in preparing daily activity logs, laboratory records and reports.

- Establish and maintain effective working relationships with coworkers, officials, contractors, regulatory agencies and the general public.

- Safe operation, care and handling of hand and power tools, technical laboratory equipment and hazardous chemicals.

Other Job Characteristics

- Regular bending, stooping, climbing, lifting and carrying of moderately heavy objects (up to 50 pounds) common in the installation, maintenance and repair of water plant equipment and facilities.

- Frequent exposure to extreme weather conditions, hazardous chemicals, toxic fumes, high voltage, moving machinery and equipment, hazardous chemicals, fumes and materials common to water treatment plants.

- Work a rotating shift schedule including weekends and holidays.

As provided under Classification and Compensation Ordinance 8064, Section 2.2, General purpose and typical duties summarized are only illustrative of work customarily assigned and performed. Typical requirements shown may be more specifically defined by additional job analysis. Equivalencies for education or experience shown may be more specifically defined by CSC approved guidelines.

Minimum Qualifications

Education and Experience: A High School diploma or GED, and one (1) year mechanical maintenance experience.

Licenses and Certificates: Class "D" Water or Wasterwater Certificate of Competency issued by the State of Texas required within one (1) year of appointment. Class "C" Water or Wastewater Certificate of Competency required within three (3) years of appointment.